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High isostatic pressure synthesis of sonochemically modified MgB2 superconductor¹ BRETT MCCARTY, JOSUA HUGEN, DANIEL STOECKLEIN, RUSLAN PROZOROV, Iowa State University — A study of the effects of high intensity ultrasound on MgB2 precursors with different additives to improve pinning properties is reported. Additives were either co-sonicated with boron or mixed into sonicated boron afterwards. Hot isostatic pressure (HIP) was used to form fully dense MgB2 samples from precursors. Analysis of magnetization, microstructure and x-ray diffraction will be presented.

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